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| EXAMINER |
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COOLEY, CHARLES E

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| ART UNIT | PAPER NUMBER |
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1797

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| MAIL DATE | DELIVERY MODE |
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12/27/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/516,960

Applicant(s)

RUSSEL-SMITH, KEVAN
VAUGHAN

Examiner

Charles E. Cooley

Art Unit

1797

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-15 and 20 is/are allowed.
- 6) ☒ Claim(s) 16-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 20041203.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

NON-FINAL OFFICE ACTION

1. This application has been reassigned to Technology Center 1700,
DIVISION 7: Art Unit 1797 and the following will apply for this application:

Please direct all written correspondence with the correct application serial number for this application to **Art Unit 1797**.

Telephone inquiries regarding this application should be directed to the Electronic Business Center (EBC) at <http://www.uspto.gov/ebc/index.html> or 1-866-217-9197 or to the Examiner at (571) 272-1139. All official facsimiles should be transmitted to the centralized fax receiving number 571-273-8300.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. § 119, which papers have been placed of record in the file.

Information Disclosure Statement

3. Note the attached PTO-1449 form submitted with the Information Disclosure Statement filed 3 DEC 2004.

Drawings

4. The drawings filed 3 DEC 2004 are approved.

Specification

5. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

6. The disclosure is objected to because of the following informalities:

- a. The specification should have the following headings inserted therein at the appropriate locations in accordance with 37 CFR 1.77:

Arrangement of the Specification

The following order or arrangement is preferred in framing the specification and, except for the title of the invention, each of the lettered items should be preceded by the headings indicated below.

- (a) Title of the Invention.
- (b) Cross-References to Related Applications (if any).
- (c) Statement as to rights to inventions made under Federally-sponsored research and development (if any).
- (d) Background of the invention.
 - 1. Field of the Invention.
 - 2. Description of the Related Art including information disclosed under 37 C.F.R. §§ 1.97-1.99.
- (e) Summary of the Invention.
- (f) Brief Description of the Drawing.
- (g) Description of the Preferred Embodiment(s).
- (h) Claim(s).
- (I) Abstract of the Disclosure.

Appropriate correction is required.

7. The abstract is acceptable.

8. The title is acceptable.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 16-19 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 00/00418.

WO 00/00418 discloses an apparatus for use with particulate material, the apparatus including a vessel 12 for at least partially confining a body of the bulk particulate material; a rotatable member 14 or 102 which is arranged such that in use it is submerged in the body of bulk particulate material; an inlet 22 leading into the vessel; and an outlet 24 leading from the vessel; drive means 106 connected to the rotatable member and capable of rotating the rotatable member about said axis of rotation when the rotatable member is submerged in the body of bulk particulate material; the rotatable member defines at least one material contacting surface 34 facing substantially tangentially in the direction of rotation thereby to cause movement of material particles essentially towards or away from the axis of rotation at least on initial contact of the material particles with the material contacting surface.

11. Claims 16-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Hood (US 5,908,240).

Hood discloses an apparatus for use with particulate material, the apparatus including a vessel 12 for at least partially confining a body of the bulk particulate material; a rotatable member 18 which is arranged such that in use it is submerged in the body of bulk particulate material; an inlet 14 or 28 or 30 leading into the vessel; and an outlet 16 leading from the vessel; a vent outlet 32; drive means 20, 22 connected to the rotatable member and capable of rotating the rotatable member about said axis of rotation when the rotatable member is submerged in the body of bulk particulate material

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. **Claims 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hood (US 5,908,240) in view of Wayte (US 4,893,941).**

Hood does not disclose the rotatable member defining at least one material contacting surface facing substantially tangentially in the direction of rotation. The patent to Wayte discloses a rotatable member 6 in a vessel 9 having material contacting surfaces 5 facing substantially tangentially in the direction of rotation (col. 3, lines 14-

16). It would have been obvious and mere common sense to one having ordinary skill in the art, at the time applicant's invention was made, to have substituted the rotatable member in Hood with the rotatable member having at least one material contacting surface facing substantially tangentially in the direction of rotation as taught by Wayte for the purposes of directing the substances in the vessel in a horizontal direction to positively circulate and mix the substances (col. 3, lines 35-53).

Allowable Subject Matter

14. Method claims 1-15 and 20 are allowable over the prior art of record.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles E. Cooley in Art Unit 1797 whose telephone number is (571) 272-1139. The examiner can normally be reached on Mon-Fri. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/CEC/
Charles E. Cooley
Examiner
DIVISION 7: Art Unit 1797

19 December 2007